

REMARKS

By the foregoing amendments claim 13 has been cancelled and claims 1, 6, 7, 10, and 15 have been amended. New dependent claims 25 and 26 have also been added. Thus, claims 1-3, 6, 7, 9-12, 15, 16, 18 and 23-26 are in the application. Claims 3 and 12 are withdrawn as being directed to a non-elected species but would be allowable if the generic claims from which they depend are allowed.

Claims 1-3, 6, 7, 9-13, 15, 16, 18, 23 and 24 were rejected in the outstanding Office Action under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-21 of commonly owned U.S. Patent No. 7,108,723. While Applicants take issue with the propriety of this rejection, in order to obviate the rejection a Terminal Disclaimer is enclosed herewith. In view of the submission of the Terminal Disclaimer, it is respectfully submitted that the propriety of the rejection has been rendered moot.

Claims 1, 2, 6, 7, 9-11, 13, 15, 16, 18, 23 and 24 were rejected in the Office Action under 35 U.S.C. §102(b) as being clearly anticipated by Atkinson, et al., U.S. PG Pub No. 2002-0087216 A1, as stated on pages 4-6 of the Office Action.

Claims 1, 2, 6, 7, 9, 10, 11, 13, 15, 16, 18, 23 and 24 were further rejected in the Office Action under 35 U.S.C. §102(b) as being clearly anticipated by Schneider, DE 298 20 904 U1. The reference was applied as indicated on page 6 of the Office Action.

These rejections are hereby traversed and reconsideration thereof is respectfully requested in view of the above amendments to the claims and Applicants remarks set forth below.

The Atkinson et al. publication is for a prosthetic walking system which is fundamentally different from that disclosed and claimed by Applicants. Reference is made in the rejection of the application claims to Figures 8, 9, 11, 13, 14, 19 and 20 of Atkinson et al. Figure 11 is reproduced in the Office Action on page 5. As noted on page 10 of the publication, in paragraph [0092], the elements and features of the prosthetic walking system 450 illustrated in Figures 11-13 having a form, structure, or function similar to that found in the prosthetic walking system of Figures 3-10B are given corresponding reference numbers in the 400 series. As described at the end of the paragraph, a lower end 453 of the pylon 452 is preferably integrally connected to an upper leg 414 of the prosthetic ankle 412. The upper leg 414 is preferably integrally connected to a an interconnecting portion 432 which is integrally connected to a lower leg 424. Preferably, the interconnecting portion 432 flexes at a medial/lateral axis 434 as described with respect to the embodiments described above.

Thus, the description of the prosthetic walking system of Atkinson et al. with respect to Figures 3-10B is applicable to that of Figures 11-13, where the elements and features are given corresponding reference numbers in the 400 series. Referring to the specification in paragraphs [0052] and [0053] and the remarks with respect to Figures 5A-6C, it is noted that the Atkinson et al. prosthetic walking system is characterized by the use of a C-shape for the prosthetic ankle 12/412 having an upper leg 14/414 and a lower leg 24/424. The upper and lower legs are interconnected by an interconnecting portion 32/432 to define the C-shape of the prosthetic ankle 12/412. As stated in paragraph [0053], the interconnecting portion 32/432 is constructed to only bias the upper leg 14/414 and the lower leg 24/424

apart from one another until the upper leg and the lower leg are substantially parallel. As a result, the upper leg and lower leg are positioned in a parallel, spaced -apart relationship when most of the amputee's weight is not placed on the prosthetic ankle (i.e., the low-load, parallel position). Thus, the interconnecting portion 32/432 bias's the upper leg and the lower leg apart from one another, but preferably the upper leg and the lower leg do not flex apart from one another past the low-load, parallel position. Flexing of the C-shape of the prosthetic ankle is described as taking place about a medial/lateral axis 34/434. The end of the upper leg 14/414 is connected to a pylon 52/452. From this description, which is applicable to the figures of Atkinson, et al. referenced in the rejection, including Figs. 11-13, it is seen that the C-shape of the ankle permits essentially vertical movement of the upper and lower legs toward one another under loading and back to their substantially parallel arrangement upon release of loading during gait.

Atkinson et al. is quite different in structure and function from Applicants improved prosthetic foot/prosthesis wherein, as recited in claim 1 as amended, a resilient, monolithically formed shank extends upwardly from the foot keel, by way of an anterior facing continuous convexly curved surface which extends over at least most of the length of the shank and has increasing radius of curvature, to form an ankle joint area and a curvilinear prosthetic part of a leg extending substantially upward above the ankle joint area. The ankle joint area and the prosthetic part of a leg formed by the resilient shank are anterior facing convexly curved and have dorsiflexion and plantarflexion motion capabilities in response to a ground reaction force created in a person's gait in the prosthetic foot. This is explained with respect to Figures 1 and 2 of the application drawings wherein the motion outcome of the

foot in gait in the direction of arrows B and B₁ indicate a substantial horizontal component to the dynamic response capability motion outcome of the foot in gait.

This improved dynamic response of the prosthetic foot/prosthesis of the invention is discussed in more detail in the application specification. The improved dynamic response is as compared to the C-shape design for ankles as discussed with respect to Martin et al., U.S. Patent No. 5,897,594, in the Background Art section of the application specification on pages 1 and 2. The advantages also are attained with respect to Atkinson et al. which employs the known C-shape for the ankle. Atkinson, et al. teach away from the present invention in urging the use of the C-shape for the ankle with a pylon attached to the upper leg of the ankle. The significantly improved dynamic response with the prosthesis/prosthetic foot of the present invention as compared with conventional prostheses employing a C-shaped for the ankle evidences the non-obviousness of the present invention under 35 U.S.C. §103.

While the aforementioned comments distinguishing the present invention from Atkinson et al. were made with respect to independent claim 1, it is noted that independent claim 10 as amended contains similar limitations and is likewise patentably distinguishable over Atkinson, et al. under 35 U.S.C. §102 and 103.

The German reference to Schneider, DE 298 20 904 U1, was relied upon for its disclosure in Figure 1 wherein a prosthetic shaft/leg/shank 15 is coupled or joined to the foot 1 by a band-shaped material strip 16 which is connected at one end to the foot as shown in Figure 1 and twisted about 90° in the sagittal plane as it extends upwardly from the foot in a substantially straight manner from the foot to the prosthetic foot/shaft/leg/shank 15 as described on page 11, the paragraph containing

lines 3-10. The undersigned is attempting to obtain an English translation of this portion of the reference in support of this argument and will file the translation by supplemental letter as soon as it is obtained. Because the band-shaped material strip 16 is twisted from a laterally extending position on top of the foot 1 to a longitudinally extending position by the approximately 90° twist, the strip 16 does not extend upwardly from the foot keel by way of an anterior facing continuous convexly curved surface which extends over at least most of the length of the shank. The twisting the strip 16 causes what is an anterior facing surface extending upwardly from the foot, from the turnout line 20 in Figure 1, to become concave or flat within a relatively short distance above the line 20. The lateral edge of the strip 16 is not anterior facing from the foot but only becomes so after being twisted as illustrated in Figure 1.

Schneider thus fails to teach or suggest the use of both an ankle joint area and a prosthetic part of a leg formed by the shank which are anterior facing convexly curved and have dorsiflexion and plantarflexion motion capabilities in response to a ground reaction force created in a person's gait in the prosthetic foot as in the present invention. The upper part of the strip 16 is resistant to flexing in the longitudinal, e.g., dorsiflexion and plantarflexion directions, because of the orientation of the relatively wide strip in the longitudinal direction after being twisted 90°. In view of these basic differences, any permissible flexing in the strip 16 in the longitudinal direction would occur immediately adjacent the turnout line 20 where the material thickness in the longitudinal direction is minimal as compared with the width of the strip 16 which would preclude longitudinal motion in the upper portions of the coupling. In view of these differences, it is respectfully submitted that the application

claims as amended are not anticipated, 35 U.S.C. §102, or rendered obvious, 35 U.S.C. §103, in view of Schneider.

In view of the above amendments and remarks as well as the Terminal Disclaimer filed herewith, it is believed that the application claims as amended are in condition for allowance and such action by the Examiner is respectfully requested. While Applicants have made a good faith attempt to place the application in condition for allowance, if the Examiner finds that outstanding issues remain in the application he is invited to telephone the undersigned to schedule a personal interview with a view toward resolution of such matters in order to place the application in condition allowance.

An Information Disclosure Statement has been filed herewith.

Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment to the undersigned's Deposit Account, Deposit Account No. 01-2135 (Case No. 183.39735PA7).

Respectfully submitted,

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Attachment
RJS:kmh